

AV INFO

PRODUCT:
High-end 12in/900W
sealed subwoofer

POSITION:
Below only the
15in Reference
Series No.32

PEERS:
B&W DB1D;
Perlisten D212s

REL's £7,000, 52kg sub reminds **Richard Stevenson** what good bass is all about

The legacy continues

1. REL's cabinet and feet design enables stacked Line Arrays

2. The No.31's CarbonGlass driver is a custom design for the Reference Series

As naming protocols go, a Reference product designation based on the number of years you have been in business has limitations... Yet there is very little else limited about REL's No.31, which hit drawing boards 31 years after founder Richard Lord created his first sub with a high-level input for stereo systems.

Fast-forward through all the boring R&D, testing and development stuff, and the No.31 is a fully-fledged £7,000 beast of a subwoofer, albeit now playing second fiddle, well, second bass, in REL's lineup to the even mightier £10,000 No.32.

If there is something a little familiar about the low height, wide girth and curvaceous cabinet of the No.31, it is because the general cabinet shape and acoustic design owes much to both the (now discontinued) REL Gibraltar series and the REL No.25 that we reviewed in 2017 (*HCC #271*). Here we have a cabinet only 435mm tall but a voluminous 638mm wide and an enormous 720mm front to back, constructed of MDF up to 60mm thick. There's a valid reason for the No.31's vertically challenged dimensions too. REL's Line Array concept suggests three stacked on top of each other – often in a stereo pair. That would be six No.31s, a bill for £42,000, and a bad back lifting each 52kg unit into place... but it does sound tempting.

String theory

This subwoofer's finish and build is stunning. The sumptuous deep-gloss black lacquer is mirror-perfect and a joy to behold, the trim pieces demonstrate serious attention to detail, and the retro 'string' grille is a work of art in its own right. I do want to pluck it like a harp, though.

Inside, REL uses an RF treatment to soften the glue in the MDF, allowing it to be formed into the curved side panels. This, it says, better retains the structural integrity of the material than either steaming it or cutting grooves into it to allow it to bend. The sealed cabinet design is further tuned with a heavy-metal plate embedded in the top panel, finished in a rather fancy carbon trim to match the driver cone.



While the 12in CarbonGlas woofer may look the same as in a number of other REL designs (like the Carbon Special), it's not. The Reference Series gets its own specially developed long-throw cone with an inverted centre cap and a huge rubber roll surround. The driver, surround and magnet system have been fettled to provide a faster response and deeper bass with lower distortion, with the necessary power coming from a 900W Class D amp, with filtering and frequency shaping/EQ conducted wholly in the analogue domain. No DSP here, oh no.

With plenty of connections on the rear, the controls are handed over to a remote control and front-mounted display. Both are about as wacky as they get and are either a fabulously avant-garde design triumph or ergonomic nightmare, depending on your point of view. The display is a gloriously retro white LED segment design with its backboard hardware clearly visible through the clear glass front screen. It could have been an LCD, or obscured, or blue tinted, but this old-school display wears its tech with pride and, when illuminated, the near inch-tall digits are easily visible.

REL's remote control is very much a unique take on the genre. It's round, really heavy and glamorous in its chrome and carbon trim. It's also a pain to operate, with recessed notched knobs for high-level and low-level/LFE gain and crossover frequency, along with lever switches for phase (0/180) and two-band parametric EQ. There is no fancy measuring and automatic EQ here; you just manually chose two frequencies to trim should you have some specific room or integration issues. There is a lock lever to keep the settings secure, and bright white LEDs to show you which of the three knobs you are twiddling with.

'For all its imposing stature, REL's Reference Series No.31 is an audio device of exquisite sonic refinement and class'



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REVIEWS

Practically the No.31 is a massive beast, particularly for a 12in sub, and quite literally filled the corner of my cinema. The shape does lend itself to corners and a slightly jaunty angle firing into the room. The sealed cabinet keeps boundary gain from this position in relative check.

As per REL's penchant, I ran it connected to both the LFE output of an AVR and the front left/right speaker terminals to its high level inputs. With the receiver's 'Front' bass management set to Main+LFE, this setup should ensure there is plenty of action whether the content/setup is running bass to the mains only or splitting it out to LFE. Installation and dialling into my system was handled by REL's Rob Hunt. While I would normally undertake this myself, the No.31 is huge and heavy and, with its £7,000 asking price, a REL dealer will certainly come out and help buyers install it too.

First-class lows

For all its imposing stature, driver acreage and looks to scare small children, the No.31 is an audio device of exquisite sonic refinement and class. It produces finely detailed, even-handed and authoritative bass, unleashing its full physical potential only when the volume knob swings dramatically clockwise. Take the subwoofer back to moderate volumes, and it continues to seamlessly underpin the entire soundstage, adding richness and scale to every channel. That is never more apparent than through the centre speaker, where the No.31 solidifies the tone and timbre of speech, making it far more realistic and believable. Not just in the LF region either, but seemingly bolstering the presence of the dialogue across the vocal spectrum.

From the gruff vocal depths of Pedro Pascal's Din Djarin (*The Mandalorian*, Disney+) to Ruth Wilson's articulately spoken Alice Morgan in *Luther* (BD), switching the No.31 on and off mid-episode is a night and day level difference in sonic authority and room-filling presence. It really is an amazing transition, reminding me very much of the original RELs of old that would add an amazingly subtle level of detail and depth.

Mind you, those old RELs (Stadiums and Stentors) couldn't knock the LFE skin off a cold rice pudding when it came to movie bass, whereas the No. 31 steps up to that mark very nicely. It goes deep, it hits hard and fast thanks to that new driver and sealed cabinet design, and goes very loud. The big rumbling car chases and explosions of *Mad*

SPECIFICATIONS

DRIVERS: 1 x 12in CarbonGlas long-throw woofer **ENCLOSURE:** Sealed, stackable (with kit) **ONBOARD POWER (CLAIMED):** 900W Class D amp **FREQUENCY RESPONSE (CLAIMED):** 17Hz-200Hz **REMOTE CONTROL:** Yes, premium bespoke design **DIMENSIONS:** 435(h) x 638(w) x 720(d)mm **WEIGHT:** 52kg

FEATURES: Stereo/LFE line-level on both unbalanced RCA and balanced XLR; XLR LFE and XLR line-level outputs; stereo high-level Neutrik Speakon input and outputs; 0/180 degree phase; two-frequency manual parametric EQ; removable string grilles; front-facing LED segment display; all-analogue filter network

TESTED WITH



DARK SIDE OF THE MOON: Pink Floyd's 1973 album is probably their best known, and for good reason – on tracks like *Time* and *Money*, the group found another level of musical (and technical) mastery. It's available on every format going, including this year's 50th anniversary set featuring 5.1/Atmos Blu-ray, vinyl, CD and DVD-A!

Max: Fury Road (4K BD) are a simple gizzard-wobbling joy, the No.31 keeping a tight leash on the output to make sure other details don't get lost in the furore. It just begs you to keep nudging the LFE/.1 level up to see if something gives before your windows.

Only a very specific type of audiophile would try out the No.31 with a 180g vinyl pressing of Pink Floyd's *Dark Side of the Moon*, but I did – and it was sublime. There is something in REL's Reference DNA that has two-channel music at its heart, be it the high-level inputs, analogue filters or cabinet engineering, and the No.31 is no exception. If you listen to as much music, from stereo to spatial, as you do movies on your system, then it's probably game over for the sub-woofing competition.

However, there can be little denying that the sheer size, challenging remote control, peculiar display and rejection of DSP in a world where every other subwoofer on the planet priced over £5,000 is loaded with digital trickery make the No.31 a unique choice. One that I suspect will polarise opinion, particularly against more compact pieces of high-tech bass engineering built on a foundation of such digital wizardries, such as B&W's DB1D (HCC #277) or models from Perlisten (HCC #331).

Come in, No.31

Having spent plenty of time with REL's cinema-centric Serie HT 'Predator' models, I would suggest that – if you simply want movie LFE SPLs to turn your spleen inside out – the four HT-1510s you could buy with the same coin would be another strong competitor.

Yet that would be missing the real strengths of REL's Reference model. It's ability to add sonic quality and texture to the entire audio picture, whether that is with stereo music or the most complex cinematic mix, has never failed to impress me since the 1990s. The No.31 continues that legacy ■

3. Rear panel offers flexible connections, but controls, including two-band EQ, are moved to the No.31's separate remote



HCC VERDICT



REL No.31

→ £7,000 → www.rel.net

WE SAY: REL's No.31 lives up to its Reference moniker, delivering premium LFE slam and speed alongside unrivalled bass detail that enhances the entire soundfield.